



# Ash Black

TECHNOLOGY. INNOVATION. EDUCATION.

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## PLATFORMS & SKILLS

XR: Unreal Engine 5  
Niantic 8<sup>th</sup> Wall

DATA: SQL Server, ETL, data modeling, T-SQL, stored procedures, distributed queries, geospatial, time series

WORKFORCE: Discord, OBS, Live Video skills for education and team management

CREATIVE: Website design, Photoshop, Premiere, Reaper, strong creative writing and copy

WEB: .NET, Visual Studio, HTML5/CSS, Javascript, C#, Azure, IIS

DATA VISUALIZATION: D3.js, ArcGIS, KML, Google Maps/Earth, MapBox, Tableau, Scientific Visualization, VR

Holistic understanding of data, data modeling, and databases including relational, multi-dimensional, and columnar designs. Strong set-based reasoning and ability to physically engineer SQL Server.

Social science training with appreciation for interpreting human behavior through data models. Specialist knowledge of archaeological systems.

Demonstrable ability to lead, inspire, and build culturally and technologically diverse high-performance teams and online communities.

Strong technical writing and presentation skills with ability to present complex concepts to diverse audiences. Excellent creative white boarding.

Excellent audio production skills.

Highly creative **technologist** and **educator** with advanced applications development, data science, VR/AR, and student-engagement skills seeks breakout **leadership opportunity** to galvanize communities into spirited high-tech experiential learning workforces capable of facing the demands of this decade.

- **Founder** of Tech Core, a revenue-positive **student engagement** based software development shop fostering full stack skills for graduate/undergraduate coders, creatives, and entrepreneurs while expanding institutional research capabilities in Web, data, and emerging tech (techcore.arizona.edu).
- **Lecturer** of entrepreneurship with ample international, start-up, and consulting experience specializing in motivational teaching, and **digital prototyping**.
- **Programmer** and specialist in rapid prototyping with knowledge in Web (HTML5/CSS/Javascript/.Net), Data (SQL Server, Visualization), XR, and Adobe Suite with ability to build **first-generation applications** from scratch.
- **Emerging Tech** specialist in AR, VR, and Metaverse-ready toolkits with data science, modeling, and **scientific visualization** capabilities for Web and VR ([youtube.com/watch?v=xg3q4qXYDMg](https://youtube.com/watch?v=xg3q4qXYDMg)).
- **Social science** background with ability to structure very large data models with an understanding of geospatial statistics, algorithm development, and the scientific principles of data exploration and analysis. Veteran troubleshooting skills.

## EMPLOYMENT

### Owner, ashblack media, LLC

XR Education & Consulting, Tucson Arizona (2022 – Present)

- XR, Workforce Development, and .NET services (see ashblack.com).

### Lecturer, Technology & Entrepreneurship

University of Arizona, Eller College of Management (2019 – Present)

- Author of unique online graduate entrepreneurship course integrating contemporary technology (AI, XR, Data Visualization) with social media, video, and web presence foundations.
- Undergraduate teaching focused on design thinking, rapid prototyping, and bringing creativity to business formation processes.

### Executive Director of Tech Core

University of Arizona, Eller College of Management (2019 – 2022)

- Founded innovative higher education experiential learning program engaging 300+ students annually with responsibility for strategic vision, budgets, funding, project management, application architecture, hiring, social media, and brand.
- Led popular summer internship galvanizing ~100 grads/undergrads annually into a highly motivated high tech remote/in-person, 24/7 workforce rooted in *Discord*.
- Authored original HTML/C#/.NET and Unity codebases for training, and supervised continuous talent and stack evolution.
- Served on Dean's Digital Innovation Initiative to introduce *Tableau*, *Excel*, *Adobe Creative Suite*, 3D Printing, Social Media and XR experiences into the classroom.

## EMPLOYMENT

### Data Scientist

University of Arizona, Office of Global Initiatives (2017 – 2018)

- Authored data visualization platform unifying university research, travel, visiting scholars, international students, global alumni, and study abroad data into a single mapping application. Grant writing.

### Director of Technology

University of Arizona, Office of Global Initiatives (2013 – 2016)

Engineered enterprise workflow automations integrating Shibboleth, CRM, project management, SaaS, Web and data warehousing operations. Managed IT Department and participated in institutional task forces.

**SQL Server Engineer** Regional OneSource, Phoenix Arizona (2009 – 2012)

- Engineered multi-dimensional data modeling software in SQL Server and VB.NET on a high-performance instance to automate the continuous production of a 3 TB structured model of US economic activity.
- Authored economic algorithms from scientific white paper for solving Class NP-Hard challenge of imputing all suppressed values in the BLS QCEW report with low variance across 4 dimensions.

**Consultant** (2001 – 2008)

- Constructed large data warehouse with Web UI, Regional OneSource, New York Public Libraries.
- Delivered a C#.NET/SQL Server application for on-the-fly imputation of store-level pricing of individual items for Circle K Corporation.
- Authored enterprise application for management and synchronization of distributed SQL Servers, customer relations portal, and a suite of data aggregation, transformation, and publishing tools.
- Engineered high-volume email marketing engines and first-generation retail marketing services.

**Director of Technology** Netscool.com, Jakarta Indonesia (1999 – 2000)

- Directed an IT training center, imparting certification and Web Development skills to over 500 students in a developing market at the height of the dot com boom. Executive responsibilities, infrastructure, brand, and curriculum development.

**Prior** Owner of ashblack co., Web design and content development for public and private sector clients including the New Mexico Departments of Tourism, and Education (1998 – 1999). Webmaster at Studio X, Santa Fe, New Mexico (1997). Technical Builder and original Webmaster of *Baywatch* television program at Free Range Media, Seattle, Washington (1995 – 96).

## EDUCATION

**Master of Science, Archaeological Information Systems**, with distinction – The University of York, 2012.

**Bachelor of Arts, Anthropology, GIS**, summa cum laude – The University of Arizona, 2010.

## PRESENTATIONS, PUBLICATIONS, PRO BONO, SERVICE

2021-22 *Biosphere 2 Science in Motion Internship*, XR and Program Management

2019-20 *Eller Faculty Technology and Innovation Team*, lead contributor

2018 *University of Arizona VR Summit*, moderator

2017 Chair of the *Dean's IT Council*, University of Arizona

2017 *Tenwest*, presenter, *Mapping Collaboration Networks through Structured Data*

2015 *Society for American Archaeology*, discussant and presenter: Digital Archaeologies group

2014 *Nature*, *The timing and spatiotemporal patterning of Neanderthal disappearance*, mapping acknowledgements

2012 *Society for American Archaeology*, paper, *Temporal Mapping*

2007-2008 *International Friends of Tucson*, authored PHP/MySQL Web application for matching international students with host families based on mutual interest and user criteria.